

We claim:

1 1. An apparatus comprising:  
2 a rigid structural panel having an outside edge and a  
3 plurality of holdown attachment points on the outside edge of  
4 the structural panel;  
5 a plurality of foundation bolts for embedding in a  
6 foundation or slab or stem wall and  
7 a foundation bolt placement template for defining a  
8 mounting location for the structural panel, and locating and  
9 supporting the foundation bolts during fabrication of the  
10 foundation or slab or stem wall; and  
11 means for attaching the structural panel holdown  
12 attachment points to the foundation bolts for transferring  
13 the lateral forces applied to the structural panel to the  
14 foundation or slab or stem wall.

1 2. The apparatus of claim 1 wherein the means for securing  
2 the structural panel to the foundation bolts further  
3 comprises:  
4 a plurality of holdowns for transferring the shear  
5 forces developed in the structural frame to the foundation  
6 bolts, each holdown attached to at least one holdown  
7 attachment point, each holdown securing the structural panel  
8 to a foundation bolt.

1 3. The apparatus of claim 1 wherein the structural panel  
2 further comprises:  
3 a rigid, generally rectangular structural frame having  
4 two coplanar vertical side members connected by two or more  
5 coplanar horizontal members forming a generally rectangular

6 opening therebetween, each vertical side member having an  
7 inside surface and an outside surface;  
8 a plurality of holdown attachment points on each  
9 vertical side member; and  
10 one or more lateral force resisting members connected to  
11 the structural frame to resist lateral forces applied to the  
12 structural frame.

1 4. The apparatus of claim 3 wherein the one or more lateral  
2 force resisting members comprise:

3 one or more horizontal spacing members coplanar to and  
4 connecting the vertical side members subdividing the  
5 generally rectangular opening forming two or more  
6 subopenings; and

7 one or more generally rectangular panels connecting each  
8 vertical side member at a vertical joint, the panel covering  
9 the two or more subopenings.

1 5. The apparatus of claim 3 wherein the one or more lateral  
2 force resisting members is metal.

1 6. The apparatus of claim 3 wherein the one or more lateral  
2 force resisting members comprise:

3 a plurality of generally rectangular coplanar panels  
4 attached to and connecting adjacent vertical members at a  
5 vertical joint, each panel covering a horizontally adjacent,  
6 generally rectangular opening.

1 7. The apparatus of claim 6 wherein the plurality of panels  
2 are attached to the vertical members using a plurality of  
3 fasteners securing each panel to each vertical member.

1 8. The apparatus of claim 4 wherein the one or more  
2 generally rectangular panels further comprise a plurality of  
3 load points.

1 9. The apparatus of claim 8 wherein the plurality of load  
2 points are arranged in a pattern.

1 10. The apparatus of claim 9 wherein the pattern of load  
2 points includes one or more linear patterns.

1 11. The apparatus of claim 9 wherein the pattern of load  
2 points includes two or more parallel linear patterns.

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